

CCPS – Latin América Reunión Regional Lima, Perú (Julio 13-14, 2023)

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Propósito de la Reunión

- Compartir avances
- Compartir y aprender (Conocimiento colectivo)
- Identificar oportunidades de mejoramiento
- Definir un plan de acción a nivel regional

Temas del CCPS



- Propósito de la reunión
- Miembros del CCPS en Latin-American
- Herramientas del CCPS
- Eventos
 - 2023 LACPS PSP Edición Especial
 - 10th LACPS – 2024 Colombia
- Proyectos regionales

Miembros en Latin America



Nuevos miembros (2023) – 2Q



- Emerald Energy
- Hocol
- GeoPark
- Ocesa (en-proceso)
- GEB - Grupo Energia Bogota (en-proceso)

Herramientas del CCPS



- Vision 20/20
- CHEST
- Vistazo al CCPS (Map-tool)
- PSID

PROCESS SAFETY AT A GLANCE

Un Vistazo al CCPS

Center for Chemical Process Safety

GUIDELINES (G/L) FOR RISK-BASED PROCESS SAFETY

CCPS MANAGEMENT RESOURCE TOOLS	20 CCPS ELEMENTS OF PROCESS SAFETY	CCPS TECHNICAL RESOURCE TOOLS
COMMIT TO PROCESS SAFETY <ul style="list-style-type: none"> PS Leadership from the Boardroom to the Frontline Essential Practices for Creating, Strengthening, and Sustaining Process Safety The Business Case for Process Safety (2018) Culture G/L for Implementing Process Safety Management Systems, 2nd ed. G/L for Process Safety in Outsourced Manufacturing Operations Local Emergency Planning Committee Guidebook: Understanding the EPA Risk Management Program Rule Heating Process Safety Leadership: The Executive Role (online and DVD) Process Safety Boot Camp/Foundations of Process Safety for Offshore Operations Process Safety Culture Toolkit 	Process Safety Culture Standards, Codes, Regulations, and Laws Process Safety Competency Workforce Involvement Stakeholder Outreach	ELECTRONIC APPLICATIONS <ul style="list-style-type: none"> Managing Cybersecurity in the Process Industries: A Risk Based Approach CCPS Glossary – oicbe.org/ccps/resources/glossary CCPS Process Safety Incident Evaluation (PSIE) tool CCPS Reactive Chemistry Watchsheet Tool New tools and videos will be added to oicbe.org/ccps/resources/tools VENTING AND EMERGENCY RELIEF <ul style="list-style-type: none"> Deflagration and Detonation Flame Arrestors Emergency Relief Systems Design Using DEBS Technology G/L for Pressure Relief and Effluent Handling Systems Safe Design and Operation of Process Vents and Emission Control Systems CHEMICAL REACTIVITY HAZARDS <ul style="list-style-type: none"> Chemical Reactivity Hazard Training CD-ROM Essential Practices for Managing Chemical Reactivity Hazards G/L for Process Safety in Batch Reaction Systems, 2nd ed. G/L for Chemical Reactivity Evaluation and Application to Process Design, 2nd ed. G/L for Safe Storage and Handling of Reactive Materials Reactivity Evaluation Software Tool SAFE DESIGN <ul style="list-style-type: none"> G/L for Process Safety in Chemical Laboratories and Pilot Plants Continuous Monitoring for Hazardous Material Releases G/L for Engineering Design for Process Safety, 2nd ed. G/L for Integrating PS into Engineering Projects G/L for Fire Protection in Chemical, Petrochemical, and Hydrocarbon Processing Facilities G/L for Safe Warehousing of Chemicals G/L for Inherently Safer Chemical Processes, A Life Cycle Approach** CONSEQUENCE MODELING <ul style="list-style-type: none"> G/L for Consequence Analysis of Chemical Releases G/L for Evaluating Process Plant Buildings for External Explosions, Fires, and Toxic Releases, 2nd ed. G/L for Vapor Cloud Explosions, Pressure Vessel Burst, BLEVE, and Flash Fire Hazards, 2nd ed. Understanding Explosions Wind Flow and Vapor Cloud Dispersion at Industrial and Urban Sites G/L for Determining the Probability of Ignition of a Released Flammable Mass BIOPROCESS SAFETY <ul style="list-style-type: none"> G/L for Process Safety in Bioprocess Manufacturing Facilities PSM Bioreactor Learning PSM Bioreactor Learning DUST EXPLOSION HAZARDS <ul style="list-style-type: none"> G/L for Safe Handling of Powders and Bulk Solids G/L for Combustible Dust Hazard Analysis HUMAN FACTORS <ul style="list-style-type: none"> Human Factors: Methods for Improving Performance in the Process Industries G/L for Preventing Human Error in Process Safety SAFETY INSTRUMENTED SYSTEMS <ul style="list-style-type: none"> G/L for Safe and Reliable Instrumented Protective Systems G/L for Safe Automation of Chemical Processes, 2nd ed. R&D <ul style="list-style-type: none"> Making EHS an Integral Part of Process Design UPSTREAM <ul style="list-style-type: none"> Process Safety in Upstream Oil and Gas Most CCPS sites apply equally to upstream processes. (Please see appropriate NPS element or technical topic.)
UNDERSTAND HAZARDS AND RISKS <ul style="list-style-type: none"> G/L for Process Safety During the Transition Operating Mode G/L for Facility Start-up and Lay-out Recognizing and Responding to Normalization of Deviance G/L for Defining Process Safety Competency Requirements* Introduction to Process Safety for Intermediates and Engineers, 2nd ed. (2022) A Practical Approach to Hazard Identification** HAZOP Learning/LPN Learning/Hazard Identification Learning Hazard Identification for Operations and Maintenance Release Awareness G/L for Chemical Process Quantitative Risk Analysis, 2nd ed. G/L for Chemical Process Safety: Severity, Safety, and Risk Management, 2nd ed. Guide for Making Acute Risk Decisions G/L for Hazard Evaluation Procedures, 3rd ed. Layer of Protection Analysis* G/L for Enabling Conditions and Conditional Modifiers in Layer of Protection Analysis Guidelines for Initiating Events and Independent Protection Layers in Layer of Protection Analysis Recognizing Catastrophic Incident Warning Signs in the Process Industries 	Process Knowledge Management Hazard Identification and Risk Analysis	GUIDELINES FOR RISK-BASED PROCESS SAFETY RISK-BASED PROCESS SAFETY
MANAGE RISK <ul style="list-style-type: none"> Human Factors Handbook for Process Safety Plant Operations: Improving Process Safety and System Performance G/L for Managing Accidental Disturbances How Ties in Risk Management: A Concept Book for Process Safety Dealing with Aging Process Facilities and Infrastructure G/L for Integrating Management Systems and Metrics to Improve Process Performance Conduct of Operation and Operational Discipline* G/L for Management of Change for Process Safety** G/L for Managing Process Safety Risk during Organizational Change G/L for Improving Plant Reliability Through Data Collection and Analysis G/L for Asset Integrity Management G/L for Performing Effective Pre-Startup Safety Reviews** G/L for Process Safety Documentation G/L for Technical Planning for On-Site Emergencies Resolving Process Incident Analysis G/L for Analyzing and Managing the Safety Vulnerabilities of Fluid Chemical Sites Process Safety for Front-Line Supervisors Learning G/L for Writing Effective Operating and Maintenance Procedures* 	Operating Procedures Safe Work Practices Asset Integrity and Reliability Contractor Management Training and Performance Assurance Management of Change Operational Readiness Conduct of Operations Emergency Management	It always makes sense to start with "Guidelines for Risk-Based Process Safety."* Find CCPS Management Resource Tools Locate CCPS resources based on the 20 CCPS Elements of Risk Based Process Safety categories. Find the applicable elements from the center column and look left to find more detailed resources. CCPS Technical Resource Tools Locate CCPS resources for specific technical topics by searching the right hand column for the target area, then searching for a title within the area. Most CCPS books are available at wiley.com/go/ccps. Deep Search CCPS Tools and courses are available at oicbe.org/ccps and keywords on knowel.com . CCPS Education Tools and courses are available at oicbe.org/ccps/resources/education . Translated Materials Mandarin, Japanese, Portuguese, Spanish and Italian versions available at oicbe.org/ccps/guidelinks . * Available in Spanish, Japanese, and/or Portuguese. ** Available in Chinese.
LEARN FROM EXPERIENCE <ul style="list-style-type: none"> Bank of Research, Open Access to Incident only Driving Continuous Process Safety Improvements from Investigated Incidents Waters of Chemical Process Safety: Bacon Lessons and Accident Prevention (Compendium available in Spanish) G/L for Process Safety Metrics CCPS PS Metrics Guide for Leading and Laggng Indicators Version 4.0 Process Safety Leading and Laggng Metrics "You Don't Improve What You Don't Measure" Process Safety Leading Indicators Industry Survey G/L for Acquisition Evaluation and Post-Merge Integration G/L for Auditing Process Safety Management Systems, 2nd ed. G/L for Investigating Process Safety Incidents, 3rd Incidents that Define Process Safety News Incidents that Define Process Safety Process Safety Incident Database (New Platform in 2022) Tools for Making Acute Risk Decisions with Chemical Process Safety Applications Victim 2020 Process Safety: The Journey Continues 	Incident Investigation Measurement and Metrics Auditing Management Review and Continuous Improvement	View the CCPS Video "Leading the Way to a Safer World" at oicbe.org/ccps/safety 

CCPS MANAGEMENT RESOURCE TOOLS

- ### COMMIT TO PROCESS SAFETY
- PS Leadership from the Boardroom to the Frontline
 - Essential Practices for Creating, Strengthening, and Sustaining Process Safety
 - The Business Case for Process Safety (2018)
 - Culture G/L for Implementing Process Safety Management Systems, 2nd ed.
 - G/L for Process Safety in Outsourced Manufacturing Operations
 - Local Emergency Planning Committee Guidebook: Understanding the EPA Risk Management Program Rule
 - Inspiring Process Safety Leadership: The Executive Role (online and DVD)
 - Process Safety Boot Camp/Foundations of Process Safety for Offshore Operations
 - Process Safety Culture Toolkit

- ### 20 CCPS ELEMENTS OF PROCESS SAFETY
- Process Safety Culture
 - Standards, Codes, Regulations, and Laws
 - Process Safety Competency
 - Workforce Involvement
 - Stakeholder Outreach



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ccps@aiche.org | aiche.org/ccps

https://www.aiche.org/sites/default/files/docs/pages/ccps_at_glance_2021.pdf

Process Safety Incident Database



- **PSID: Process Safety Incident Database** (Base de datos de incidentes de seguridad de procesos)
- Desarrollado por el CCPS
- Libre acceso para compañías miembro del CCPS (excepto entidades gubernamentales o regulatorias)
- Mas de 20 años de antigüedad
- Software dedicado con atributos mejorados constantemente

- Recopilar, rastrear, y compartir incidentes y experiencias entre los miembros del CCPS
- Aprender de lecciones obtenidas de eventos que otros miembros reportan sin tener que sufrir las consecuencias de dichos eventos y fallas
- Proveer información valiosa para PHAs, investigaciones de incidentes, lecciones aprendidas, y concientización.

Cómo acceder al PSID?

- Cada empresa miembro deberá elegir un **administrador** del PSID dentro de su compañía
- El administrador designado agendará una sesión de entrenamiento con el personal del CCPS
- Preguntas o inquietudes técnicas se realizarán por medio del administrador de cada compañía.
- Consulte con su representante de CCPS TSC o administrador de PSID para obtener acceso a la nueva base de datos por medio de una cuenta de **usuario general**.
- **Cada empresa miembro tiene la autoridad para aprobar o denegar/eliminar el acceso de cualquiera de sus empleados al sistema.**

Herramienta multifuncional con mas de **840** incidentes tales como

PDIS es...



Base de datos con capacidad de búsqueda completa



Accesible en la web



Una fuente de lecciones aprendidas basada en la experiencia de otros



Sabia Usted?

- 17% asignan "Chemical Reacción" como la fuente de ignición
- 25% de las explosiones ocurren durante operación normal, y
- 22% son reportadas por la industria del Oil and Gas

Conoce usted las sustancias químicas mas envueltos en incidentes?

Hidrógeno, Cloro, Gasolina, Sulfuro de Hidrogeno y Amonio están el top 10.

Fácil de Usar
Búsqueda por medio de:

Modo de operación, tipo de incidente, fuente de ignición, equipo de proceso

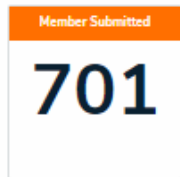
Nuevas adiciones

Usted puede adicionar nuevos incidentes online usando la nueva interface la cual es intuitiva, amigable en una plataforma segura

Numero total de Incidentes



Fuente de Registro

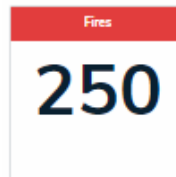


Miembros

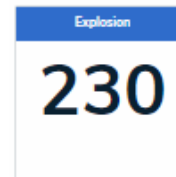


Registros Públicos

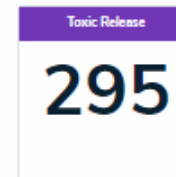
Tipos de Incidentes



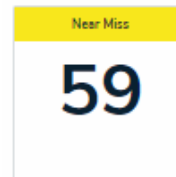
Incendios



Explosiones



Fugas Toxicas



Casi Fallas



Otras

- Cómo puedo ayudar?
- Esta su empresa dispuesta a compartir por lo menos un (1) incidente anualmente?
- Oportunidades de voluntariado - PSID and [Incident Awareness](#)

EVENTOS LATAM

Eventos CCPS en Latin America



- Marzo 14, 2023 – Durante el 19th GCPS (Houston, TX)
- Marzo 30, 2023 – Reunión virtual
- Mayo 8, 2023 – Reunión virtual (Portugués)
- Julio 13-14, 2023 – Lima, Perú (Anfitrión: Pluspetrol)
- Agosto, 2023 – Reunión virtual (Portugués)
- Octubre 19-20, 2023 – Cartagena, Colombia (Anfitrión: Ecopetrol)
 - Visita técnica: Reficar
- Diciembre 7, 2023 – Reunión virtual

Eventos CCPS en Latin America



CCPS Regional Meetings | AIChE

aiche.org/ccps/conferences-events/regional-meetings

MENU Education **Events** Membership Projects Tools Publications **SIGN IN**

TSC Meetings

Regional Meetings

Process Safety Student Boot
Camps

All Events

Faculty Workshops

PFFC Meetings

CCPS Regional Meetings

Learn more about the CCPS Regional Meetings.



Eventos CCPS en Latin America

Upcoming **Recent**

M U M B A I

MAY 12, 2023 COURTYARD BY
MARRIOTT MUMBAI INTERNATIONAL
AIRPORT, MUMBAI, INDIA

CCPS India Regional Meeting

MAY 9, 2023 VIRTUAL MEETING

**CCPS Process Safety
Knowledge Sharing Meeting**

MARCH 30, 2023 VIRTUAL MEETING

**CCPS Latin America Regional
Meeting**

DECEMBER 7, 2022 VIRTUAL MEETING

**CCPS Latin America Regional
Members Meeting**

DECEMBER 2, 2022 SAYAJI HOTEL,
SAYAJIGANJ, VADODARA, GUJARAT

CCPS India Regional Meeting

NOVEMBER 29, 2022 HOTEL HOLIDAY
INN, PATTAYA, THAILAND

**CCPS South East Asia Regional
Meeting**

[SHOW MORE](#)

Eventos CCPS en Latin America



CCPS Latin America Regional Meeting

March 30, 2023 | Virtual Meeting

→ [Brazil CCPS Activities Update - 2022 and 2023](#)

→ [CCPSC Presentation](#)

→ [PSID Presentation](#)

[DRAFT AGENDA](#)

Foros virtuales (Entrada Libre)



CICLO DE CONFERENCIAS Y DEBATES VIRTUALES EN SEGURIDAD DE PROCESOS

ABRIL 2023

EXPERIENCIAS PRÁCTICAS DE IMPLEMENTACIÓN DEL SISTEMA DE GESTIÓN DEL CAMBIO. CASOS DE ESTUDIO

FUNDAMENTOS DE LA SEGURIDAD DE PROCESO DE OGP
Disertantes Johana Girolidi Chevron- Rocío Perez Maldacema, Pluspetrol

IMPLEMENTACIÓN DE MOC EN SAP
Disertante Adrián Gerico, TGS

NUEVO SISTEMA DE ADMINISTRACIÓN DEL CAMBIO
Disertantes Arnaldo E. Burini - Lucas Greganti, Terniun

ACTIVIDAD GRATUITA

JUEVES 11 DE ABRIL DE 15 A 17HS. HORA ARGENTINA

SEGUÍ LA CONFERENCIA EN VIVO DESDE MICROSOFT TEAMS

SE OTORGARÁ CERTIFICADO DE ASISTENCIA

Formulario de Inscripción

<https://forms.gle/HrJpt2wswiQVx9t9>



Invitan al Evento:



Con apoyo de:



INSTITUTO DE SEGURIDAD DE PROCESOS UIS

Contáctenos para más información

Oficina de extensión Escuela Ingeniería Química

ingquimica.empresas@uis.edu.co

634.4000 Ext.1090



Modalidad Virtual

FORO INDUSTRIAL

¿CÓMO SABER SI CUENTO CON INSTALACIONES CLASIFICADAS SEGÚN DECRETO 1347 de 2021?



JUEVES 25 de mayo

¡ Inscríbete gratis !

<https://forms.office.com/r/W1V2itCL5X>

5:30 pm - 6:45 pm

Y si hacemos un taller en LATAM?

Faculty Workshops: Recent



LACPS

Latin America Conference on Process Safety

9th LACPS – Rio de Janeiro, Brasil

Panelists - Emerging Technologies



Outstanding attendance



CCPS LATAM Fellow Recognition



Best Young Professional Presentation

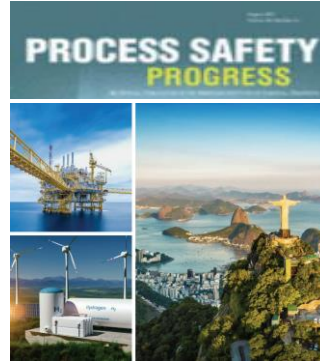


Highlights

- 3 days event co-organized by CCPS and IBRAM (Brazilian Mining Institute)
- Registrations sold out 2 weeks before the conference
- 327 attendees from different Latin-American countries and the United States
- 78 presentations, 3 keynote speakers, and 1 panel discussion
- Simultaneously translations (English, Spanish, and Portuguese)
- 11 sponsors, 12 exhibitors, and 2 institutional supporters
- Participant diversity (i.e. mining, oil & gas, chemicals, food industry, consulting and academia)
- New sessions on emerging technologies (cybersecurity), climate change, and sustainability
- 3 awards to recognized best presentations

9th LACPS – Rio de Janeiro, Brasil

9th LACPS
En-progreso



Special Issue: Latin America
Conference on Process Safety,
Oct 28-20 (In-progress)
~ 10 publicaciones

Ediciones
pasadas



Volume 40, Issue S1

**Special Issue: Latin American Process
Safety Conference Nov 3–5, 2020**

Pages: S1-S31

August 2021

Issue Edited by: Néstor H. Spósito, Marvin B. Szoychen

10th LACPS – COLOMBIA 2024

- 10th LACPS - 2022: Cartagena, Colombia
- 9th LACPS - 2022: Rio de Janeiro, Brazil
- 8th LACPS - 2018: Buenos Aires, Argentina
- 7th LACPS - 2016: Lima, Peru
- 6th LACPS - 2014: Buenos Aires, Argentina
- 5th LACPS - 2013: Cartagena, Colombia
- 4th LACPS - 2012: Rio de Janeiro, Brazil
- 3rd LACPS - 2011: Buenos Aires, Argentina
- 2nd LACPS - 2010: Sao Paulo, Brazil
- 1st LACPS - 2008: Buenos Aires, Argentina



COPA AMÉRICA



Hablemos del 10th LACPS

Lecciones del 9th LACPS (Brasil, 2022)

- Mejorar compromiso regional
 - Número de empresas involucradas
 - Comprometidas desde 2023 (presupuesto 2024)
- Continuar reuniones regulares con LT
 - Agosto (1era reunión LT)

Hablemos del 10th LACPS

Temas potenciales

- PSM
 - Integridad Mecánica
 - Energy Transición
 - Pequeñas empresas
 - Cultura y Liderazgo
 - Gestión de Barreras
 - Incidentes, Casos de estudios,
 - Mas...
- SdP en Transición Energética
 - Paneles de Discusión
 - Educación de SdP en Latam
 - Regulaciones en Latam
 - Talleres
 - Taller de Liderazgo para altos ejecutivos
 - Fundamentos de SdP

Hablemos del 10th LACPS

Planes de Patrocinio

Overall Sponsorship Recognition

	Diamond	Platinum	Gold	Silver	Bronze	Aluminum
USD	\$30,000	\$20,000	\$15,000	\$10,000	\$5,000	\$2,000
Company logo on general sponsor signage	✓	✓	✓	✓	✓	✓
Company logo on conference website	✓	✓	✓	✓	✓	✓
Company logo in promotional emails	✓	✓	✓	✓	✓	✓
Post-meeting attendee list	✓	✓	✓	✓	✓	✓
Complimentary registrations	12	6	4	3	2	
Exhibit space	✓	✓	✓	✓		
Advertisement in conference program	Premium	Full page	Full page	Half page	Logo	

Nota: Todos los niveles de patrocinio se pueden personalizar para cumplir con su presupuesto y objetivos para la reunión.

Por qué patrocinar el LACPS?



- Demuestra el apoyo y el liderazgo de su empresa para garantizar la seguridad de los procesos en la región de América Latina.
- Permite conectarse y comunicar su mensaje con expertos y líderes de SP.
- Exhibir brinda la oportunidad de interactuar directamente con los asistentes a la conferencia para educarlos sobre cómo sus productos y servicios pueden ayudar a mejorar sus prácticas actuales de seguridad de procesos.

Gracias Preguntas? Comentarios?

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